

METHODS AND COMPOSITIONS FOR MODIFYING OIL AND PROTEIN  
CONTENT IN PLANTS

ABSTRACT OF THE DISCLOSURE

Compositions and methods for altering pyruvate synthesis in plants are provided. The compositions and methods find use in increasing the oil or protein content of plant tissues, particularly seeds. Novel isolated nucleotide molecules encoding cytosolic and 5 plastidic pyruvate kinases are provided. The methods involve introducing into a plant nucleotide sequences encoding enzymes that alter pyruvate synthesis. Additionally provided are isolated pyruvate kinases and transformed plants, plant tissues, plant cells, and seeds thereof.